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(54) **Time diversity for data communication over a voice channel**

(57) A receiver with a time diversity combining component recovers a digital data signal transmitted over a voice channel of a digital wireless telecommunications network. A feature extraction module receives an audio frequency waveform encoding the digital data signal and generates a feature vector representing the digital data signal. A bit sequence estimation module analyzes the

feature vector and generates an estimated bit sequence corresponding to the digital data signal. A memory stores the feature vector if the estimated bit sequence contains errors. A time diversity combining component generates a second estimated bit sequence by analyzing the first feature vector in combination with one or more feature vectors stored in the memory.

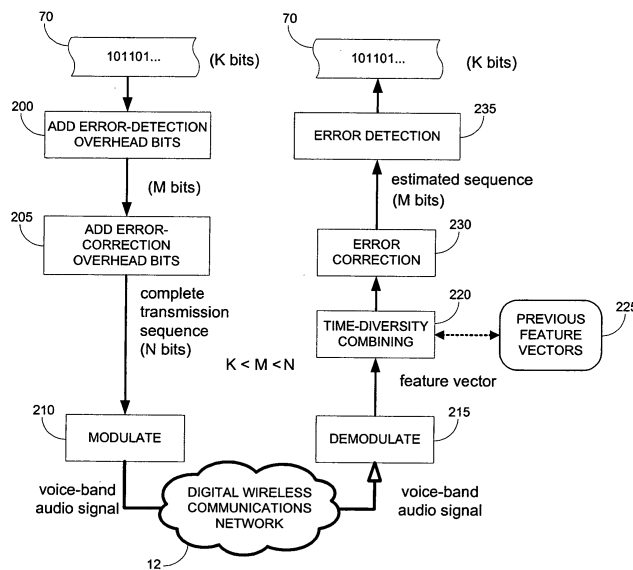


FIG. 3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	WO 99/14885 A (NOKIA MOBILE PHONES LTD [FI]; PAATELMA RISTO [FI]; BERG HEIKKI [FI]; K) 25 March 1999 (1999-03-25) * page 12, line 8 - page 15, line 22 * * figures 1,2,3A,3B *	1-13	INV. H04L1/18
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A	US 5 881 069 A (CANNON GREGORY LEWIS [US] ET AL) 9 March 1999 (1999-03-09) * abstract * * column 4, line 51 - column 6, line 51 *	1-13	
A	US 5 761 204 A (GROB MATTHEW S [US] ET AL) 2 June 1998 (1998-06-02) * abstract *	1-13	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			H04L H04M
Place of search		Date of completion of the search	Examiner
The Hague		20 June 2008	Toumpoulidis, T
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone                      Y : particularly relevant if combined with another document of the same category                      A : technological background                      O : non-written disclosure                      P : intermediate document</p> <p>T : theory or principle underlying the invention                      E : earlier patent document, but published on, or after the filing date                      D : document cited in the application                      L : document cited for other reasons                      &amp; : member of the same patent family, corresponding document</p>			

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EPC FORM 1503.03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82